

§ 53.01-1

46 CFR Ch. I (10-1-10 Edition)

Subpart 53.12—Instruments, Fittings, and Controls (Article 6)

53.12-1 General (modifies HG-600 through HG-640).

AUTHORITY: 46 U.S.C. 3306, 3703; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; Department of Homeland Security Delegation No. 0170.1.

SOURCE: CGFR 68-82, 33 FR 18826, Dec. 18, 1968, unless otherwise noted.

Subpart 53.01—General Requirements

§ 53.01-1 Incorporation by reference.

(a) Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in this section, the Coast Guard must publish notice of change in the FEDERAL REGISTER and the material must be available to the public. All approved material is available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030 or go to http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. The material is also available for inspection at the U.S. Coast Guard, Office of Design and Engineering Standards (CG-521), 2100 2nd St. SW., Stop 7126, Washington, DC 20593-7126, and is available from the sources listed below.

(b) *American Society of Mechanical Engineers (ASME) International*, Three Park Avenue, New York, NY 10016-5990:

(1) 2001 ASME Boiler and Pressure Vessel Code, Section I, Rules for Construction of Power Boilers (July 1, 2001) (“Section I of the ASME Boiler and Pressure Vessel Code”), 53.01-10.

(2) 2004 ASME Boiler and Pressure Vessel Code, Section IV, Rules for Construction of Heating Boilers (July 1, 2004) (“Section IV of the ASME Boiler and Pressure Vessel Code”), 53.01-3; 53.01-5; 53.01-10; 53.05-1; 53.05-2; 53.05-3; 53.05-5; 53.10-1; 53.10-3; 53.10-10; 53.10-15; and 53.12-1.

(c) *Underwriters Laboratories Inc.*, 333 Pfingston Road, Northbrook, IL 60062-2096:

(1) UL 174, Standard for Household Electric Storage Tank Water Heaters, Tenth Edition, Feb. 28, 1996 (Revisions through and including Nov. 10, 1997) (“UL 174”), 53.01-10.

(2) UL 1453, Standard for Electric Booster and Commercial Storage Tank Water Heaters, Fourth Edition, Sep. 1, 1995 (“UL 1453”), 53.01-10.

[USCG-2003-16630, 73 FR 65163, Oct. 31, 2008, as amended by USCG-2009-0702, 74 FR 49228, Sept. 25, 2009]

§ 53.01-3 Adoption of section IV of the ASME Boiler and Pressure Vessel Code.

(a) Heating boilers shall be designed, constructed, inspected, tested, and stamped in accordance with section IV of the ASME Boiler and Pressure Vessel Code (incorporated by reference; see 46 CFR 53.01-1) as limited, modified, or replaced by specific requirements in this part. The provisions in the appendices to section IV of the ASME Boiler and Pressure Vessel Code are adopted and shall be followed when the requirements in section IV make them mandatory. For general information, Table 53.01-3(a) lists the various paragraphs in section IV of the ASME Boiler and Pressure Vessel Code that are limited, modified, or replaced by regulations in this part.

TABLE 53.01-3(a)—LIMITATIONS AND MODIFICATIONS IN THE ADOPTION OF SECTION IV OF THE ASME BOILER AND PRESSURE VESSEL CODE

Paragraphs in Section IV of the ASME Boiler and Pressure Vessel Code ¹ and disposition	Unit of this part
HG-100 modified by	53.01-5(b)
HG-101 replaced by	53.01-10
HG-400 modified by	53.05-1
HG-400.2 modified by	53.05-2
HG-401 modified by	53.05-1
HG-401.2 modified by	53.05-3
HG-500 through HG-540 modified by	53.10-3
HG-600 through HG-640 modified by	53.12-1

¹The references to specific provisions in the ASME Boiler and Pressure Vessel Code are coded. The first letter, such as “H,” refers to section IV. The second letter, such as “G,” refers to a part or subpart in section IV. The number following the letters refers to the paragraph so numbered in the text of the part or subpart in section IV.

(b) References to the ASME Boiler and Pressure Vessel Code, such as paragraph HG-307, indicate:

H = Section IV of the ASME Boiler and Pressure Vessel Code.

G = Part containing general requirements.

3 = Article in part.

307 = Paragraph within Article 3.

(c) When a paragraph or a section of the regulations in this part relates to material in section IV of the ASME Boiler and Pressure Vessel Code, the relationship with the code will be shown immediately following the heading of the section or at the beginning of the paragraph, as follows:

(1) (Modifies H____.) This indicates that the material in H____ is generally applicable but is being altered, amplified or augmented.

(2) (Replaces H____.) This indicates that H____ does not apply.

(3) (Reproduces H____.) This indicates that H____ is being identically reproduced for convenience, not for emphasis.

[CGFR 68-82, 33 FR 18826, Dec. 18, 1968, as amended by CGFR 69-127, 35 FR 9976, June 17, 1970; CGD 81-79, 50 FR 9435, Mar. 8, 1985. Redesignated and amended by CGD 88-032, 56 FR 35821, July 29, 1991; USCG-2003-16630, 73 FR 65163, Oct. 31, 2008]

§ 53.01-5 Scope (modifies HG-100).

(a) The regulations in this part apply to steam heating boilers, hot water boilers (which include hot water heating boilers and hot water supply boilers), and to appurtenances thereto. The requirements in this part shall be used in conjunction with section IV of the ASME Boiler and Pressure Vessel Code (incorporated by reference; see 46 CFR 53.01-1). Table 54.01-5(a) of this subchapter gives a breakdown by parts in this subchapter of the regulations governing various types of pressure vessels and boilers.

(b) *Modifies HG-100.* The requirements of Part HG of section IV of the ASME Boiler and Pressure Vessel Code shall be used except as noted otherwise in this part.

[USCG-2003-16630, 73 FR 65163, Oct. 31, 2008]

§ 53.01-10 Service restrictions and exceptions (replaces HG-101).

(a) *General.* The service restrictions and exceptions shall be as indicated in this section in lieu of the requirements in HG-101 of section IV of the ASME Boiler and Pressure Vessel Code (incor-

porated by reference; see 46 CFR 53.01-1).

(b) *Service restrictions.* (1) Boilers of wrought materials shall be restricted to a maximum of 103 kPa gage (15 psig) for steam and a maximum of 689 kPa (100 psig) or 121 °C (250 °F) for hot water. If operating conditions exceed these limits, design and fabrications shall be in accordance with part 52 of this subchapter.

(2) Boilers of cast iron materials shall be restricted to a maximum of 103 kPa gage (15 psig) for steam and to a maximum of 206 kPa gage (30 psig) or 121 °C (250 °F) for hot water.

(c) *Hot water supply boilers.* (1) Electrically fired hot water supply boilers that have a capacity not greater than 454 liters (120 gallons), a heat input not greater than 58.6 kilowatts (200,000 BTU per hour), and are listed as approved under Underwriters' Laboratories UL 174 or UL 1453 (both incorporated by reference; see 46 CFR 53.01-1) are exempted from the requirements of this part provided they are protected by a pressure relief device. This relief device need not comply with § 53.05-2.

(2) Oil fired hot water supply boilers shall not be exempted from the requirements of this part on the basis of size or heat input.

(d) Exhaust gas type boilers shall be restricted to a working pressure equal to or less than 103 kPa gage (15 psig) and an operating temperature equal to or less than 454 °C (850 °F). The design temperature of parts exposed to the exhaust gas must be the maximum temperature that could normally be produced by the source of exhaust gas. This temperature shall be verified by testing or by the manufacturer of the engine or other equipment producing the exhaust.

(e) Heating boilers whose operating conditions are within the service restrictions of § 53.01-10(b)(1) may be constructed in accordance with section I of the ASME Boiler and Pressure Vessel Code (incorporated by reference; see 46 CFR 53.01-1). In addition, these heating boilers must:

(1) Be stamped with the appropriate ASME Code symbol in accordance with PG-104 through PG-113 of section IV of the ASME Boiler and Pressure Vessel Code;